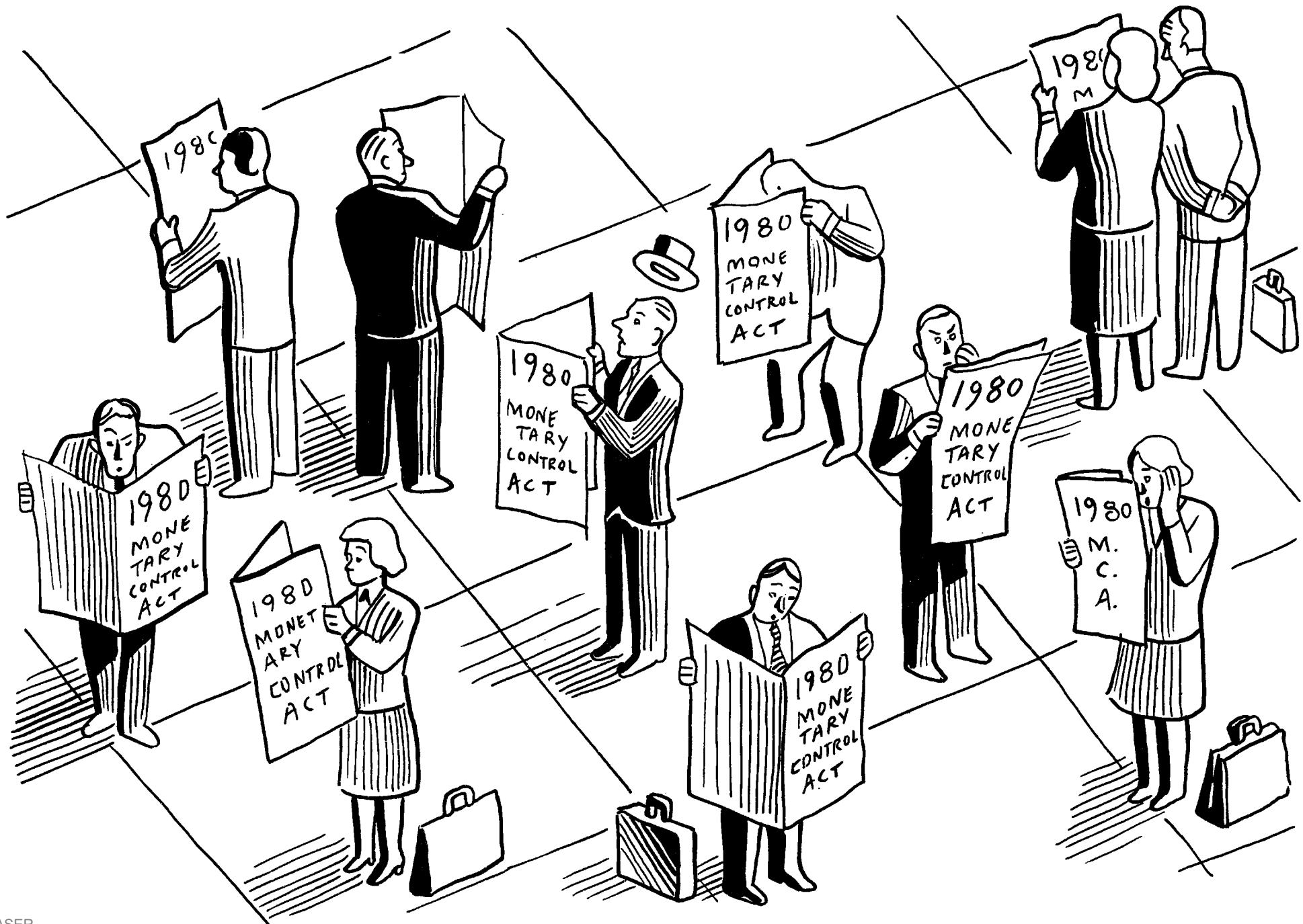


The Dichotomy Becomes Reality:

Ten Years of the Federal Reserve as Regulator and Competitor

Federal Reserve Bank of Minneapolis

1991 Annual Report



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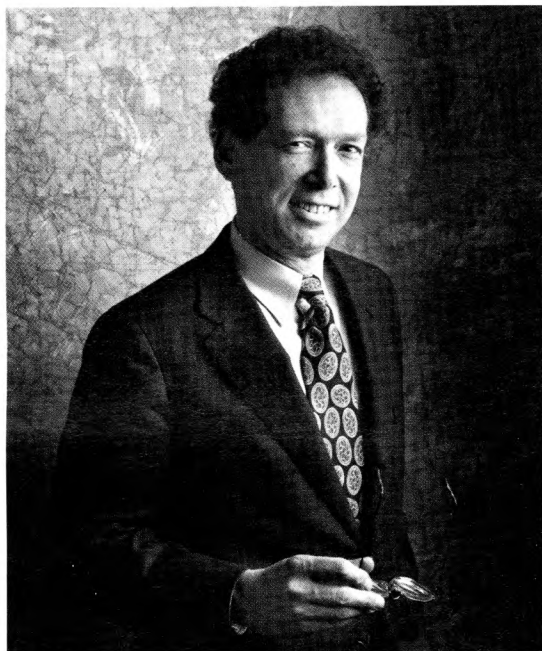
The Dichotomy Becomes Reality:

Ten Years of the Federal Reserve as Regulator and Competitor

By Leonard W. Fernelius, *Senior Vice President*
of Federal Reserve Financial Services and David Fetting, *Public Affairs Editor*

The views expressed in this annual report are solely those of the authors; they are not intended to represent a formal position of the Federal Reserve System.

President's Message



The Depository Institutions Deregulation and Monetary Control Act of 1980 required, among other things, that Federal Reserve district banks price their payments services, such as check and electronic transfer, and offer them to all financial institutions, rather than providing them at no charge to member banks only. Thus began a new era in modern financial services: A federal regulator was authorized to compete with those it regulated.

The Fed's role as regulator and competitor raises two compelling questions: first, can a federal regulator viably compete with the private sector; and second, can a competitor regulate in a fair manner? Fed pricing began in 1981, and now, after 10 years of Fed competition, it is appropriate to review the record and seek answers to those questions, which Leonard Fernelius and David Fetting have done in this 1991 Annual Report essay.

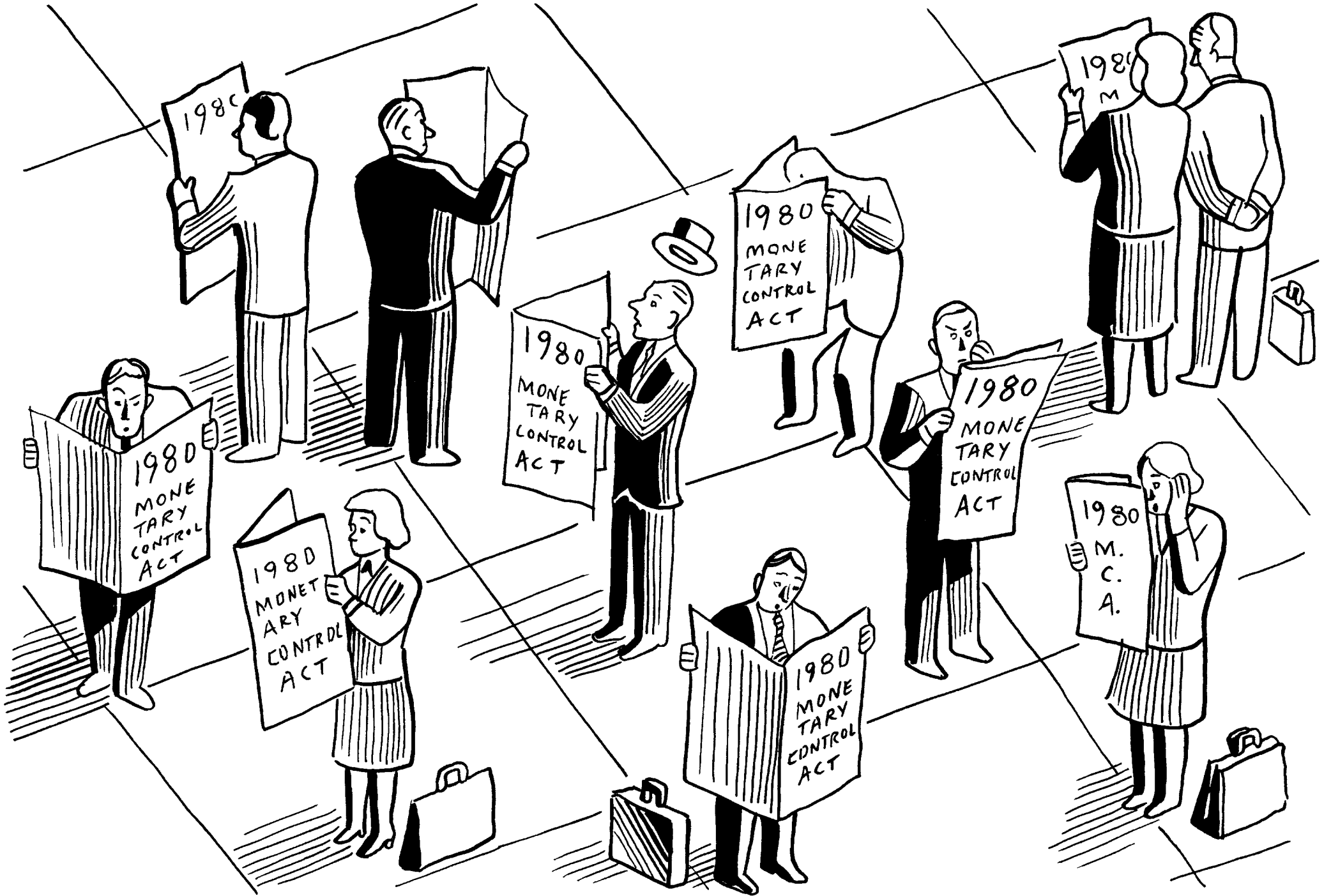
The circumstances that led to a federal regulator's entrance into a competitive market reflect the uniqueness of America's financial services industry. The Fed's history as a competitor and regulator doesn't begin with the passage of a law in 1980; rather, the Fed's current place in the payments system has its roots in

the Fed's early years, when the nation's payments system was fraught with inefficiency. In this essay, a historical review shows that the Fed's current role mirrors, in large part, Fed efforts of nearly 80 years ago.

As for the future, one thing is certain: The Fed's role as regulator and competitor will continue to shape its place in the payments system. Advances in technology and the prospect of national interstate banking will put even greater pressure on the Fed to compete efficiently, while these same phenomena—billions of dollars transferred electronically every day among a growing array of large institutions—will underscore the importance of sound regulation.

I hope this essay helps illuminate the Fed's unique role in the nation's payments system, while at the same time casting light on the significance of an often overlooked part of our financial services industry.

Gary H. Stern
President



The Dichotomy Becomes Reality:

Ten Years of the Federal Reserve as Regulator and Competitor

While it may be a relatively arcane law in the annals of contemporary legislative action, the MCA did much to change the nature of America's financial services system.

A revolutionary endeavor in government regulation and enterprise was launched in 1980 with the passage of the Depository Institutions Deregulation and Monetary Control Act. Known as the Monetary Control Act (MCA), the law, among other things, authorized the Federal Reserve System (Fed) to compete for business with the same financial institutions that it also regulates—a dual role that is unique in America's economy. Specifically, the Fed was ordered to begin pricing its financial payments services, such as check collection and electronic funds transfer, and to offer those services to all financial institutions in direct competition with the private sector—the same private sector that must abide by Fed regulation. On one hand, the Fed was authorized to enhance efficiency through competitive business practices; on the other, the Fed had a responsibility to regulate its competitors to ensure the safety and soundness of the payments system. The MCA included other significant reforms that are noted later, but the focus of this report is the MCA's creation of the seemingly dichotomous role of the Fed in the payments system.

While it may be a relatively arcane law in the annals of contemporary legislative action, the MCA did much to change the nature of America's financial services system. Likewise, it has

been both derided and praised, criticized and defended. Ten years ago, critics said a quasi-governmental agency could not compete effectively with the private sector and they predicted that the Fed would soon fail and drop out of the market; some also said that forcing private companies to compete with their regulator was unfair—akin to playing a football game against a team whose star quarterback doubled as the game's referee.

Today, the criticism has ebbed. Not only has the Fed's payments function survived, but it has also operated beyond expectation. After initially losing check volume during the first years of the MCA, the Fed eventually recovered and now maintains a steady presence in the market. In addition, the private sector—for the most part—has come to realize that the purpose of payments system regulation is not to give the Fed a competitive advantage; rather, it is to help improve the overall efficiency and security of the system.

But all is not rosy for the Fed. The second decade of the MCA brings new challenges. Reductions in check volume for the Fed will likely occur, putting pressure on the district banks to manage costs of production accordingly. Still, with its willingness and drive to innovate, the Fed expects to be an important part of the second decade of the MCA. Also, just as in the 1980s,

the dual role of the Fed as regulator and competitor will continue to shape the Fed's position in the payments system. This continuing role is evidenced in the Expedited Funds Availability Act (EFAA) of 1987. EFAA sets strict guidelines on the time a financial institution may hold a check before making the funds available to a depositor, and it requires the Fed to enforce those guidelines—a role that further extends the Fed's regulator/competitor position.

The Fed's History Shapes its Future

At the turn of the century, if a Minnesota shopper wrote a check to a business in Wisconsin, that check would likely have taken inordinately long to be cleared back at the shopper's Minnesota bank. There were two reasons for this delay: the practice of charging a presentment fee on checks sent to banks for payment, and the practice of intentionally slowing payment.

Presentment fees (which existed in some parts of the country until 1968) were most often charged by rural banks on checks mailed to them for payment from out of town. In our example, the Wisconsin merchant deposits the Minnesota check (for \$1,000, for example) into his Wisconsin bank. The Wisconsin bank credits its customer's account for \$1,000 and then mails the check to the Minnesota bank for collection. But the Minnesota bank imposes a charge of, say, \$1, and only sends back \$999 to Wisconsin.

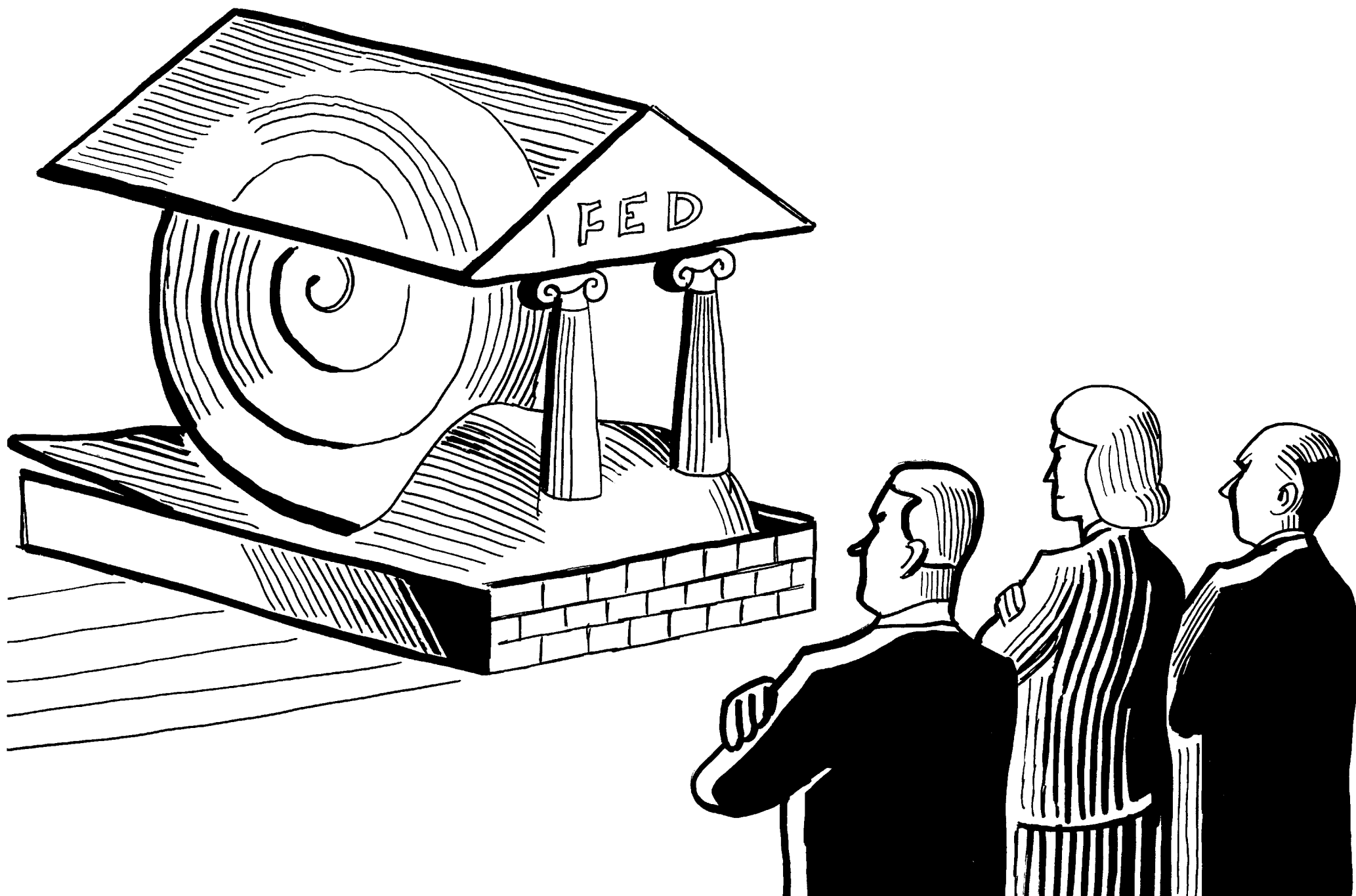
While it may seem wise for the Minnesota bank to charge for its check services (although many at the time argued that such fees were excessive), the result wasn't always as intended.

Determined to avoid such charges, the Wisconsin bank likely took the time to find other banks that had a no-fee relationship with the Minnesota bank. The Wisconsin bank would then circulate checks through those banks, and eventually the checks would find their way to the Minnesota bank.

In some cases, checks would circulate through a dozen different banks before finally reaching the bank on which they were drawn. Given the vagaries of transportation at the time, these delayed funds (or float, as the funds came to be termed) were measured in weeks and sometimes months. In an infamous example, a Birmingham bank once sent a check on a cross-country trip to avoid charges from a North Birmingham bank. The check was first sent to Jacksonville, Fla., then to Philadelphia and finally to North Birmingham; but the check was written on insufficient funds and was sent back to Birmingham via Philadelphia and Jacksonville. All told, the check traveled 4,500 miles in about two weeks, and the two Birmingham-area banks were just four miles apart.

The second reason funds were delayed was from deliberate actions by some banks to slow payment to the out-of-town bank. They did this, of course, in order to keep funds as long as possible. Rather than promptly transferring funds on checks presented by an out-of-town bank, a bank may have intentionally held the funds to its own advantage and to the detriment of the out-of-town bank. (Funds availability continued to be a major concern of the country's payments system and many years later, in 1987 with the passage of EFAA, the issue of funds availability was addressed by congressional action.) Clearly, as these cases of circuitous routing and slowed payment show, the nation's payments system was inefficient.

Ten years ago, critics said a quasi-governmental agency could not compete effectively with the private sector and they predicted that the Fed would soon fail and drop out of the market.



In an attempt to address those inefficiencies, Congress included authorization in the 1913 Federal Reserve Act to allow the Fed to clear checks at no charge for member banks, as well as to perform other duties relating to clearinghouse operations. However, member bank participation was voluntary, and exchange charges and slowed payment remained the norm.

This continuing inefficient payments system was contrary to the intent of the Federal Reserve Act, the Fed maintained, and in 1916 it issued a regulation requiring member banks to eliminate presentment fees and unnecessary routing and to use their district Fed bank as a clearinghouse. In addition, the Fed charged for its check services. The Fed believed that banks would be eager to use its services in order to shorten check clearing times and to make funds available sooner. But contrary to the Fed's hopes, most banks didn't care to join the Fed in its attempt to streamline the nation's payments system because there was too much to lose by such efficiencies. Many banks earned significant income from presentment fees and benefited from slowed payments. By 1918, just two years after the regulation's authorization, the Fed rescinded its enforced attempt at check clearing efficiency and went back to providing free check services to its member banks.

While there were many events that helped shape the growing payments system between 1918 and 1980, the two most significant events in the effort to improve efficiency were the elimination of presentment-fee banking by 1972 and the Fed's development of Regional Check Processing Centers (RCPCs), also in 1972. Although from 1942 to 1965, the number of presentment-fee banks decreased by 940, there were still 1,492 such banks in 15 states. (Minnesota was the largest bastion, with 401 present-

ment-fee banks in 1965.) Presentment-fee banking declined most rapidly in those states that allowed branch banking (when banks had branches located throughout the state they were not subject to out-of-town charges from other banks), and in those states that eliminated the practice through legislative action. Public opposition swelled against presentment-fee banking throughout the 1960s and by 1972 the legislatures of the remaining states had all abolished the fees. (Minnesota's Legislature passed a law eliminating the fees in 1968.)

As for RCPCs, when the Fed created the regional centers in 1972, the program addressed check clearing issues that had been discussed for years. (In 1954, following a surge in check writing after World War II, a joint report by the Fed and the private sector suggested that the Fed establish regional clearing arrangements and consider establishing branches in financial centers throughout the country. However, because participation in the plan was voluntary, the 1954 proposals fizzled in the short run.) It wasn't until the creation of RCPCs that real improvement in the payments system was realized. Under the 1972 plan, checks drawn on RCPC-zone banks and deposited at an RCPC by midnight were given final credit the next day. The number of days needed to collect a check dropped from 2.5 days in 1967 to 1.9 days in 1979 because of the RCPC program. However, because the Fed at that time did not price its services but offered them free to members, many of the privately operated clearing houses were unable to compete with the new Fed service and were forced to close. (Some of those private clearinghouses were eventually revived in 1981 at the onset of Fed pricing.)

Therein lies the crux—and the seeming conundrum—of the Fed's responsibilities: to help ensure the efficient viability of a complex and important payments system through competitive business practices, and to regulate its competitors to guarantee the safety and soundness of the nation's financial backbone.

The Depository Institutions Deregulation and Monetary Control Act of 1980

The same principles that drove the Fed to price its services in 1916 were largely the reasons that brought the Fed back to the market in 1980. But unlike 1916, when the Fed's first attempt at pricing was thwarted by the inefficiencies of presentment-fee banking, presentment fees were not an issue. Thus, two historical obstacles to a more efficient payments system that existed at the turn of the century—the lack of a national clearing system (addressed by the Fed's presence) and presentment-fee banking—had been resolved. By requiring the Fed to price its payments services, Congress hoped to clear the final obstacle; for as long as the Fed did not price its services, those services would likely be overused and the entire system would be less efficient than possible. The framers of the 1980 law hoped to foster competition among all providers and thereby increase the choices available to the public.

Another difference between 1916 and 1980 was the issue of Fed membership. In 1916, membership in the Fed was voluntary and only Fed members could use Fed services. But the MCA required that all financial institutions—banks, savings and loans, and credit unions—keep reserves at a Fed district bank, thus making Fed services available to all financial institutions. (Other MCA provisions include: allowing access to Federal Reserve discount and borrowing privileges and other services to non-member depository institutions, the elimination of deposit interest rate ceilings and the allowance of greater powers to savings and loans.)

There was also an important technological difference between 1980 and 1916. In the Fed's early years, check collection and

clearing were the primary payment services offered by the Fed. Today, there are a variety of services that reflect the growing complexity of the financial payments system. For example, in addition to check services, the Fed also offers electronic funds transfer and automated clearinghouse services. [See accompanying glossary of Federal Reserve services at right.] Every day billions of dollars are transferred electronically throughout the world as governments and corporations make decisions that are important to all sectors of a nation's economy. Without an efficient—and safe—payments system, these economic changes could not reliably occur.

For most Americans, the nation's payments system is a mundane matter. The fact that the check they write at the grocery store will eventually be debited from their account, or the fact that their payroll check will be automatically credited to their account via electronic transfer is rarely cause for concern. In that respect the payments system becomes a sort of utility, or another form of infrastructure—it's important but it's also taken for granted. However, unlike a broken gas main or downed power line that affects a relatively small area, a failure in the payments system can have devastating consequences that could ripple through the nation's economy and even to other countries.

The payments system is one of the first places where financial problems become obvious, and serious problems involving one or more financial institution's inability to meet its payment obligations would have major repercussions throughout the financial services industry. Not only is it imperative to have the most efficient possible payments system, but it's also crucial that the payments system be safe and sound. Therein lies the crux—

Federal Reserve Services

Check Processing Services: The Federal Reserve Bank of Minneapolis clears about 2.9 million checks per day, making it the second largest single check processing shop in the Federal Reserve System.

Automated Clearinghouse (ACH): ACH is an electronic means for exchanging paperless debit and credit entries between financial institutions for customer accounts like Social Security checks, commercial payrolls, mortgage payments, insurance premiums and utility bills. The Minneapolis Fed processed about 138 million commercial ACH transactions and 35 million government transactions in 1991.

Funds Transfer Service: The Fed's nationwide backbone telecommunications network allows financial institutions to transfer funds with the assurance that all funds received are final payment in "same day" funds. The Ninth District originated about \$2.5 trillion in funds transfers in 1991 and received about \$1.9 trillion.

Cash Services: The Fed's priced services for currency and coin primarily involve shipping to financial institutions and cash terminals throughout the district. The Ninth District shipped about \$5.3 billion in currency and \$148 million in coins in 1991, and received about \$5.2 billion in currency and \$143 million in coin.

Securities Services: The Fed maintains the securities accounts (such as Treasury bills and bonds) of financial institutions and their customers (including municipal and corporate securities, certificates of deposit and stocks) and also electronically transfers funds for those accounts.

and the seeming conundrum—of the Fed’s responsibilities: to help ensure the efficient viability of a complex and important payments system through competitive business practices, and to regulate its competitors to guarantee the safety and soundness of the nation’s financial backbone.

The Challenge: Fed as Regulator and Competitor

Can the Fed compete?

The obvious answer to the question of the Fed’s competitive fitness lies in its track record. As expected when the Fed first introduced its prices for check services in August 1981, it lost volume. Specifically, the Fed lost 19.7 percent of its check volume during the first month of pricing. From August 1981 to April 1983, the average monthly volume was about 22.4 percent lower than that of July 1981. Also, during those transition years the Fed was unable to recoup its costs through priced service revenues.

But the Fed bounced back, and since 1984 has recovered its costs for check processing, cash and funds services. [Other services matched cost and revenues in later years, see table on this page.] Today, just as it did before the enactment of the MCA, the Fed—including its 12 district banks and 25 branch banks and offices—processes about one-third of the nation’s check volume.

Not only has the Fed proven its ability to compete, but it has also met one of the congressional intents of the MCA, namely, to improve the overall efficiency of the nation’s payments system.

Priced Services: Revenues as a Percentage of Costs 1982-1991

Service	1982	1984	1986	1988	1990	1991
Cash	87.9%	102.0%	101.0%	102.6%	102.9%	103.4%
Funds	88.7%	111.4%	104.2%	99.8%	106.7%	99.7%
ACH	60.4%	96.6%	103.9%	101.1%	100.2%	101.3%
Check	82.0%	108.6%	105.1%	98.6%	101.2%	101.1%
All Services*	84.3%	104.1%	105.5%	100.9%	103.7%	100.7%

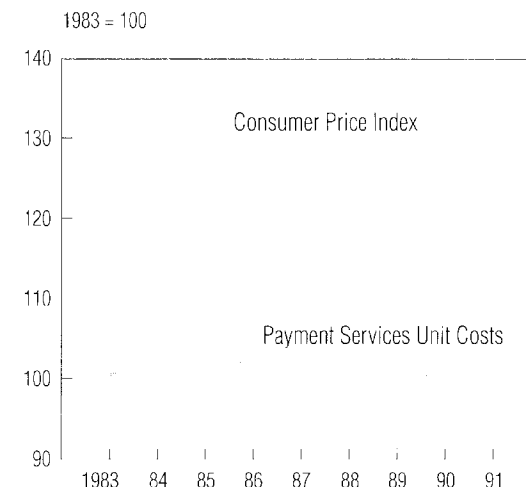
All services = Cash, Funds, ACH, Check, Book-Entry, Definitive, Non-cash.

It’s possible to quantify this efficiency claim by tracking output along with the real, or inflation-adjusted, costs of production for Fed payments system operations. As the graph on this page attests, while inflation rose steadily from 1983 to 1991 (from base-year 100 to 136.75 in 1991), the Fed’s average unit costs for payments system operations actually declined (from 100 to 99.39). Likewise, since the Fed had stable costs, it follows that the Fed also had stable prices. At the same time that real costs were declining, the Fed’s output was increasing: Total checks processed were about 12.9 billion for the entire Fed System in 1983, and in 1991 the total reached about 15.6 billion. [See graph on page 10.]

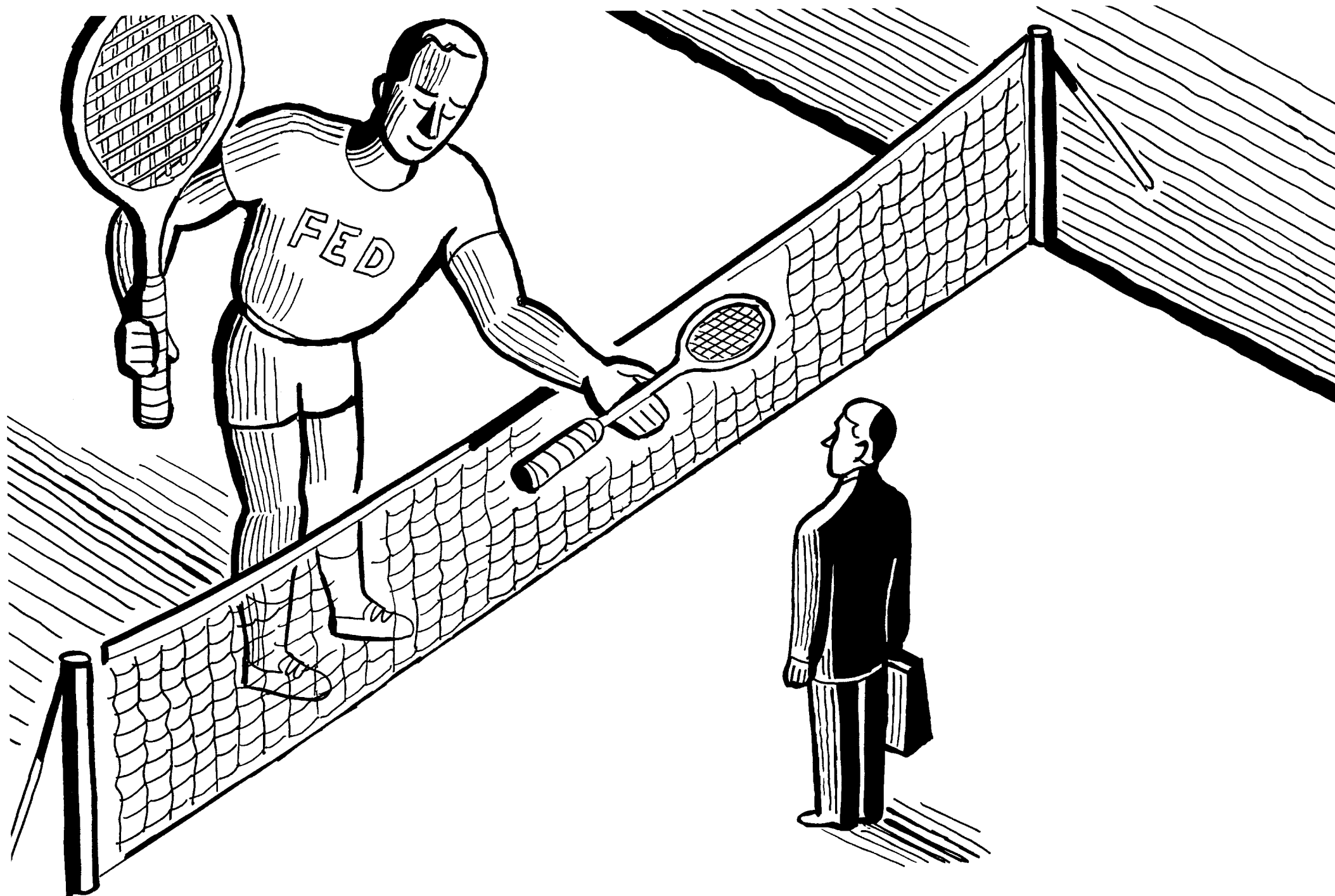
Can a competitor regulate in a fair manner?

The Fed’s ability to compete, however, masks the regulatory controversy that has embroiled it during the past decade. For example, while the Fed has recovered its costs since 1984, there is debate surrounding the Fed’s method of computing its costs and

As Prices Rise, Fed Unit Costs Remain Steady



While changes in presentment times have improved the Fed's performance and significantly reduced the amount of float, those changes gave rise to criticism that the Fed unfairly manipulated regulations to improve its own performance.



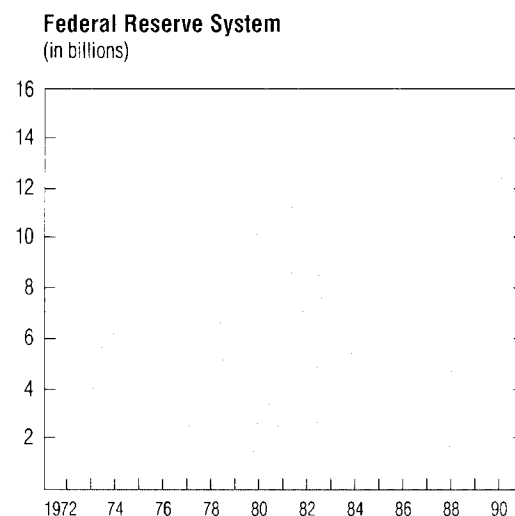
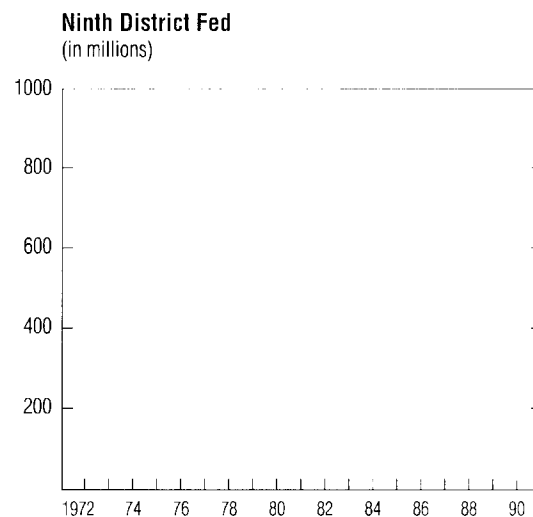
prices. And, while changes in presentment times have improved the Fed's performance and significantly reduced the amount of float, those changes gave rise to criticism that the Fed unfairly manipulated regulations to improve its own performance.

When the MCA was debated, it was acknowledged that the Fed would have an unfair price advantage since—as a federal regulator—it was not subject to tax and capitalization costs that affected the private sector. To address this inequality, a private sector adjustment factor (PSAF) was created for the Fed to account for “the taxes that would have been paid and the return on capital that would have been provided had the services been furnished by a private business firm.” [See description of the PSAF on the following page.] But the PSAF didn't settle the controversy and soon after the MCA's implementation, some competitors began calling on Congress to investigate the Fed's pricing policies.

The U.S. General Accounting Office (GAO) and congressional committees have investigated whether the Fed has operated its payments services in a fair manner. In 1982 the GAO released a report that criticized the Fed for its slowness in adjusting its fees to a level that was adequate to recover its full costs—as mandated by the MCA. The GAO estimated that by supposedly underpricing its services the Fed had, in effect, reduced its income potential and thus held back over \$100 million from the U.S. Treasury (and hence American taxpayers) in both 1982 and 1983.

The GAO report was followed by joint hearings of the Commerce, Consumer and Monetary Affairs Subcommittee and the Domestic Monetary Policy Subcommittee of the House Committee on Banking, Finance and Urban Affairs. The

Commercial Checks Processed 1972-1991



hearings produced additional complaints from the private sector about the adequacy of the Fed's internal accounting system, along with suggestions that the Fed has an unfair competitive advantage as a federal regulator. Specifically, the charges relating to the Fed's regulatory status concerned the Fed's exemption from presentment fees (fees charged by some financial institutions for presentments later than established deadlines) and the Fed's unlimited ability to operate its check business across state lines, an option not available to financial institutions. Some critics also suggested that all Fed payments operations should be placed in an autonomous corporation, leaving the Fed with only its role as regulator of the payments system.

But the House Committee on Banking found no evidence of wrongdoing by the Fed and reiterated the intention of Congress that the Fed should continue to serve its dual role as a regulator and competitor. However, the committee also found that the Fed had not been giving proper weight to the objective of fair competition in its pricing and other operational decisions. Accordingly, the Fed agreed to consider the impact of its business decisions in light of industry competition, a commitment that still exists today. Currently, all major operating changes proposed by the Fed undergo a rigorous process of research and analysis, including public comment, to determine the competitive impact of its decisions.

Aside from the processes and the procedures that are in place to ensure that the Fed operates in a fair and competitive manner, the Fed has adopted its own unwritten code of fair play that has been labeled a “Chinese Wall.” The reference to the Great Wall of China is used to describe the separation of the Fed's payments function from the regulatory activities of the bank. This Chinese

The Private Sector Adjustment Factor

Because of its federal status, the Federal Reserve does not have the tax and capital costs associated with the operation of a private institution. To bring competitive balance between the Fed and its private competitors, the Monetary Control Act of 1980 requires that the Federal Reserve's fees for priced services must include an allowance for the taxes and return on capital costs that would affect a private firm. This allowance is called the private sector adjustment factor (PSAF).

While in theory it may seem simple to adjust the Fed's prices to reflect the added costs of private firms, the practical applications of the PSAF are complicated and have been a source of contention over the past 10 years. For example, "capital," in reference to the PSAF does not refer to physical capital like buildings and machinery, but rather to financial capital, or debt and equity. Federal Reserve banks, however, do not maintain formal balance sheets applicable to their priced services operations, but rely on estimates, thereby making debt and equity difficult to discern.

These following five elements used in the computation of the PSAF reveal the difficulty in determining such a figure:

1. The dollar amount of capital. Not only does the Fed have to estimate the amount of capital because it keeps no formal balance sheets for priced services, but some of that capital is used for other Fed operations. Consequently, there arises the question of how much of that capital that is shared with other operations should be assumed to apply to priced services.

2. The proportions of debt and equity in the capital structure, and the mix of short- and long-term debt. U.S.

corporations vary greatly from almost all equity to heavily debt financed, there is no established method to determine the appropriate mix for the PSAF.

3. The costs of short-term and long-term debt capital. This refers to the interest rates that would have to be paid on outstanding bonds, notes or other forms of borrowing. The issue here is whether the costs of long-term debt should be measured strictly by the current market rate of interest on corporate debt or by the average coupon rate of interest on a mix of old and new debt on a typical corporate balance sheet.

4. The after-tax rate of return on equity capital. This element is ripe for controversy for three reasons: There is no established way to determine an appropriate rate of return on equity for a private firm, there is disagreement over whether equity should be viewed from an accounting viewpoint or a market valuation viewpoint, and observed rates of return on both accounting equity and market value of equity vary widely among U.S. corporations.

5. The income tax rate. Through use of standard tax accounting, this is more easily determined.

Briefly, the Fed arrives at its prices by taking a before-tax return on equity and combining it with the costs of debt and the capital structure proportions to obtain a weighted average cost per dollar of capital. This average cost is then multiplied by the dollar amount of capital to calculate the dollar amount of surplus or net revenue that must be obtained to cover the imputed cost of capital (including income taxes). The Fed's prices for its services must then be set at levels sufficient to generate this amount of surplus revenue in the aggregate, which the Fed does by applying a uniform percentage markup to all prices.

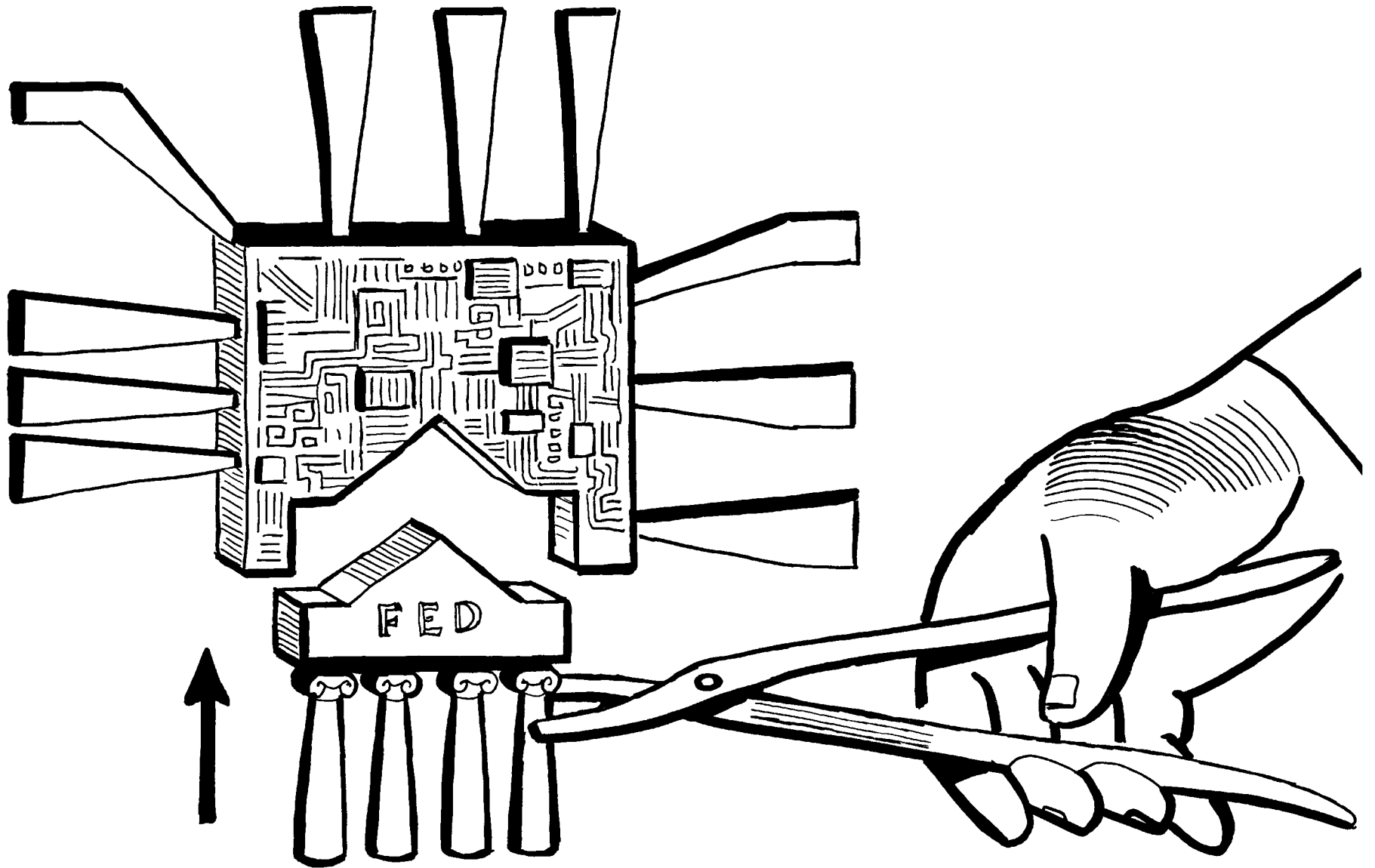
Wall is more than just a colorful phrase, it's a serious commitment. The Minneapolis Fed, for instance, is insistent that its account managers never talk about regulatory or loan activity with financial institutions. This policy extends to staff and officers at every level of the bank. Financial institutions that hope for a price break on services because they may have borrowed funds from the Fed, for example, are disappointed. There is no linkage between the Fed's payments services and its regulatory or lender roles.

Amid all the considerations of competitive fairness, it's important to remember that the Fed's motivation for its business actions does not stem from bureaucratic hubris or to earn exorbitant profits. The purpose of including the Fed as an active, competitive player in the payments system is to improve the efficiency of that system for the public good.

On the issue of competitive advantage, it should be noted that the same element that is reputed to give the Fed its advantage—the federal regulator status—is also a competitive albatross. The Fed, unlike its private counterparts, must offer its services to all financial institutions and cannot pick and choose with whom it wants to do business; the Fed also cannot greatly vary the terms of its business relationships; it has little pricing flexibility; it cannot provide the full range of services offered by the private sector; and, perhaps most importantly, every change in price and every consideration for improvements in service must bear the scrutiny of thousands of financial institutions and their respective trade associations, as well as a highly structured approval process. Any change in operational policy must be publicly posted in advance, giving the private sector a unique opportunity to preview the planned moves of one of its competitors.

It is also important to remember that the Fed is not immune to the demands of regulation—payments system changes mandated by the regulatory arm of the Fed also apply to the Fed's operational arm. This leads to a final point about the Fed's dual role as regulator and competitor: Far from being a burden to its regulatory responsibility, the Fed's operational involvement makes it a better regulator. The Fed's operational role provides valuable insight to senior management that would otherwise not be available to the Fed, and this "hands on" exposure to payments services makes the Fed a better-informed regulator. This is not a breach of the Chinese Wall. While the Fed's payments services operations are performed at the district level, it is the Federal Reserve Board in Washington, D.C., that approves pricing structures for the banks, and it is the Board that proposes regulation and seeks comment from the private sector. The Fed's district bank examiners work under the direct supervision of the Board. For example, there are about 70 examiners at the Minneapolis Fed and its Helena branch responsible for the examination of 93 state-chartered banks and 737 holding companies in the Ninth District. These examiners have no working relationship with the operational arm of the Minneapolis Fed and Helena, and the same is true at other Fed district banks. It is only at the senior management level of the district banks and at the Board where the regulatory and operational experience comes together to provide deeper insight into the nation's financial system. This insight proves especially valuable during times of financial crisis when the Fed—along with other agencies and the private sector—is relied upon to make timely and informed decisions, some of which may have major implications for the country's payments system.

Perhaps the most important development contributing to the Fed's eventual success in the payments system field was the emphasis on technological innovation to spur increased efficiencies.



Some Welcome the Fed

It should be noted that many financial institutions, especially those of a relatively small size, have welcomed the Fed as a priced service provider. Small financial institutions, of course, are not direct competitors of the Fed; rather, they are potential buyers of Fed services and as such view the Fed as another choice.

Safety and soundness issues are also important to small financial institutions, which rely on the financial strength of others to ensure their own viability. In his 1984 testimony on behalf of the Independent Bankers Association of America before the House Committee on Banking, Housing and Urban Affairs, O.J. Tomson, president of Citizens National Bank in Charles City, Iowa, stated this concern: "If I send out a cash letter [a document delivered with such items as checks and postal money orders that lists, among other things, dollar amount, number of items and the depository financial institutions], that is equal to 50 percent of the value of the capital structure of the small bank I am involved in, I want to make sure I am sending it to a sound financial institution that can properly clear it and that those funds will be safe. We don't lie awake at night worrying about the Federal Reserve System. We know that it is going to be there."

The 1980s: A Call for Innovation

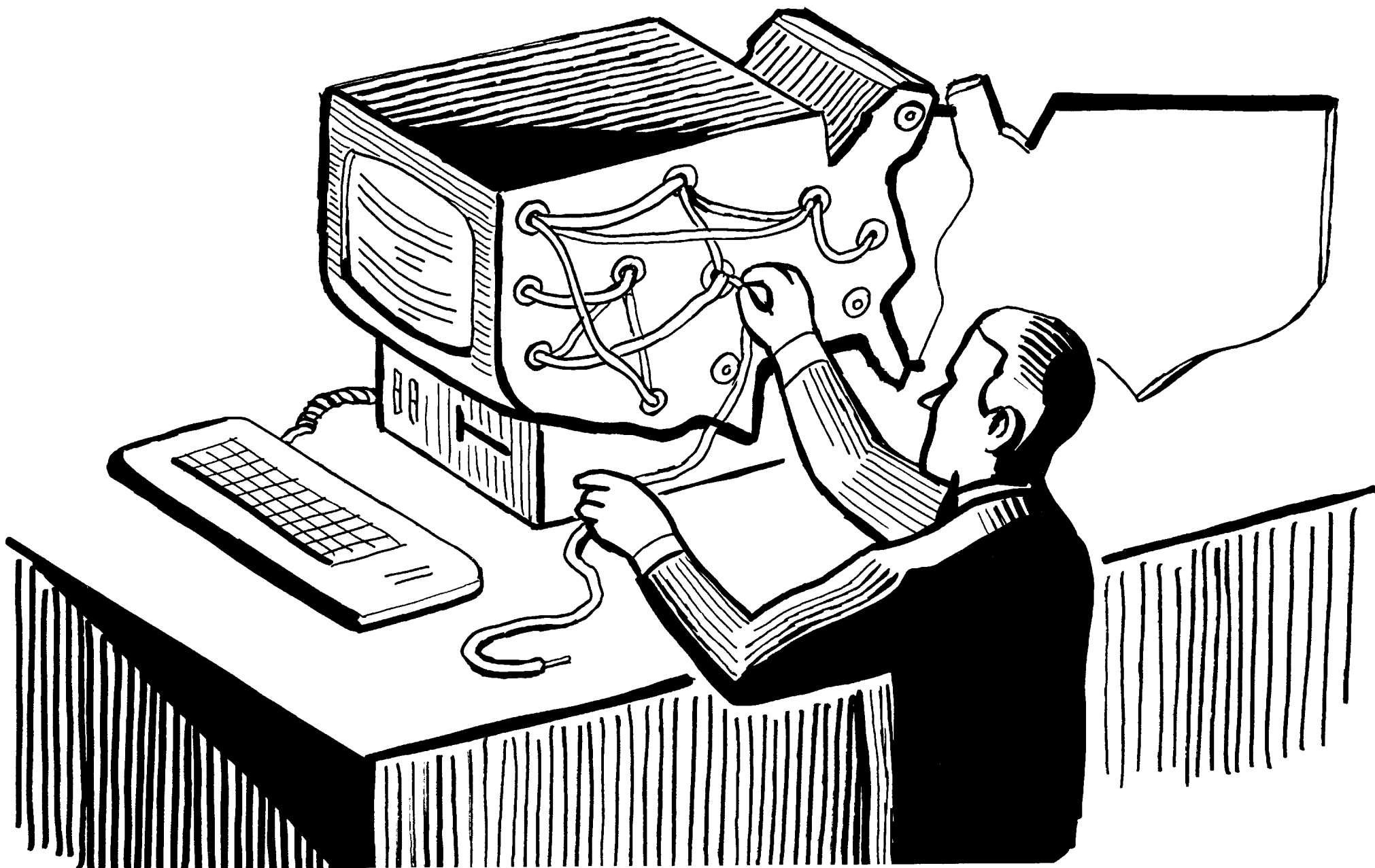
The initial prospect of entering the competitive fray of the payments system was met with confidence by the Fed district banks, but the transformation proved to be more of a challenge than expected. In a 1985 speech, Lyle E. Gramley, then member

of the Federal Reserve Board of Governors, bluntly recalled the first years of Fed pricing:

"We thought we were an efficient, low-cost provider of services, but we learned that we had to do better. We thought our services were high quality, and that they met the needs of depository institutions. What we found was considerable dissatisfaction with the types and quality of services we offered that forced us to improve. We thought that our internal management systems and information flows were adequate to the task of running the Federal Reserve's 'business enterprise.' In fact, they needed substantial modification. We thought that the transition period required for the Federal Reserve to adapt to a world of explicit pricing for services might take a year or two. In fact, while the early blizzard of Federal Reserve price and service level changes is now behind us, we find the world around us changing so rapidly that we dare not relax and rest on our laurels."

As most district banks experienced decreases in check volume following the initiation of pricing in August 1981, they had to reduce their costs in order to be able to compete effectively. For many district banks that meant reductions in staff and longer workdays. Other changes were less drastic and were more focused on long-term goals. For example, the entire Federal Reserve System began to work more cohesively through the appointment of System product directors who worked directly with Reserve banks to restructure and unify services. This emphasis on System unity was beneficial in that it helped create a more effective network of Fed resources, but perhaps the most important development contributing to the Fed's eventual success in the payments system field was the emphasis on

In the area of electronics, the Fed developed a network that offers computer to computer links with financial institutions of all sizes. From 1981 to 1990, the number of institutions connected with the Fed's electronic network increased from 2,000 to 8,000.



Payments System Innovation

While the Fed's history in the payments system has been marked by a general wariness on the part of the private sector, there have been many times when the Fed and private institutions have worked together to improve the system. Two good examples of that cooperation involve innovations in check processing: the introduction of magnetic ink characters on checks (MICR encoding) and the process of check truncation.

In the early 1950s the American Bankers Association (ABA) developed the idea of using MICR encoding, a process by which banks add to checks a line of magnetic ink characters that can be read by electronic machines. MICR encoding meant that laborious manual tasks—such as sorting items and posting payments to accounts—could be done by machines.

But the ABA didn't have the resources or the nationwide network to implement MICR technology, and in 1956 the Fed joined the effort. Following established industry standards for MICR encoding, the Fed began experimenting with various high-speed sorting machines at different Reserve banks. By 1961 the successful machines had been determined and some Reserve banks began accepting checks that were both MICR and amount encoded. Unit collection costs plunged with

the MICR checks and eventually the Fed would only accept MICR encoded checks—thus completing one of the most important transformations in check processing history.

Another important transformation—but one that is still years away from total acceptance—is check truncation. First implemented by the National Association of Check Safekeeping (NACS) in 1981, truncation is mainly the process of stopping the flow of checks. For example, instead of sending a check on a typical route—from the check writer to the payee, to the bank of deposit, to a Reserve bank, to the paying bank and back to the consumer—truncation stops the paper check at the Reserve bank and sends electronic information in its place.

Consumers don't receive their checks with their monthly statement with truncation; rather, if they need a copy of a particular check they can receive a microfilm image from their financial institution. The benefits of the truncation process are clear: Reduced paper flow means a more efficient payments system, which means lower costs for financial institutions and their customers.

The NACS truncation effort, which includes a group of large banks that truncate corporate dividend checks at the bank of first deposit, is

still in place today and serves as the inspiration for the Fed's efforts to introduce truncation to the rest of the financial services industry. The Fed introduced its own truncation test program in 1986 involving the Reserve banks of Atlanta, Kansas City, Minneapolis, Philadelphia and Richmond. Other Reserve banks have since joined the Fed's effort, which has been a consistent priority of the Minneapolis Fed and its branch in Helena, Mont. Of the 154 institutions currently using truncation, 56 are located in the Ninth Federal Reserve District.

There have been other innovations in the payments system that have been influenced by the Fed, like the payment in immediate funds on the day of presentment in 1974, improvements related to the handling of checks with insufficient funds as mandated by the Expedited Funds Availability Act of 1987, and other electronic innovations that offer increased efficiencies.

technological innovation to spur increased efficiencies.

This initiative was driven by three factors: the overall aim of the Fed to improve the payments system, the need to be competitive with the private sector in order to survive as a business, and a growing sense of competition among the 12 district banks. If one district bank developed a new technique to improve business, other district banks were not only compelled to at least consider adopting the new technique, but, where possible, to improve on the work done by the other bank. Likewise, a unique dynamic developed within the System: Individual district banks were not only competing against the private sector but were competing among themselves to see who could do the best job. Congress probably did not bargain on getting such an abundance of competitive forces when it enacted the MCA, but the effects of the district banks' efforts are obvious: By competing internally for new efficiencies—much like private competitors do—the Fed raised the level of efficiency for the entire payments system.

Fed innovation

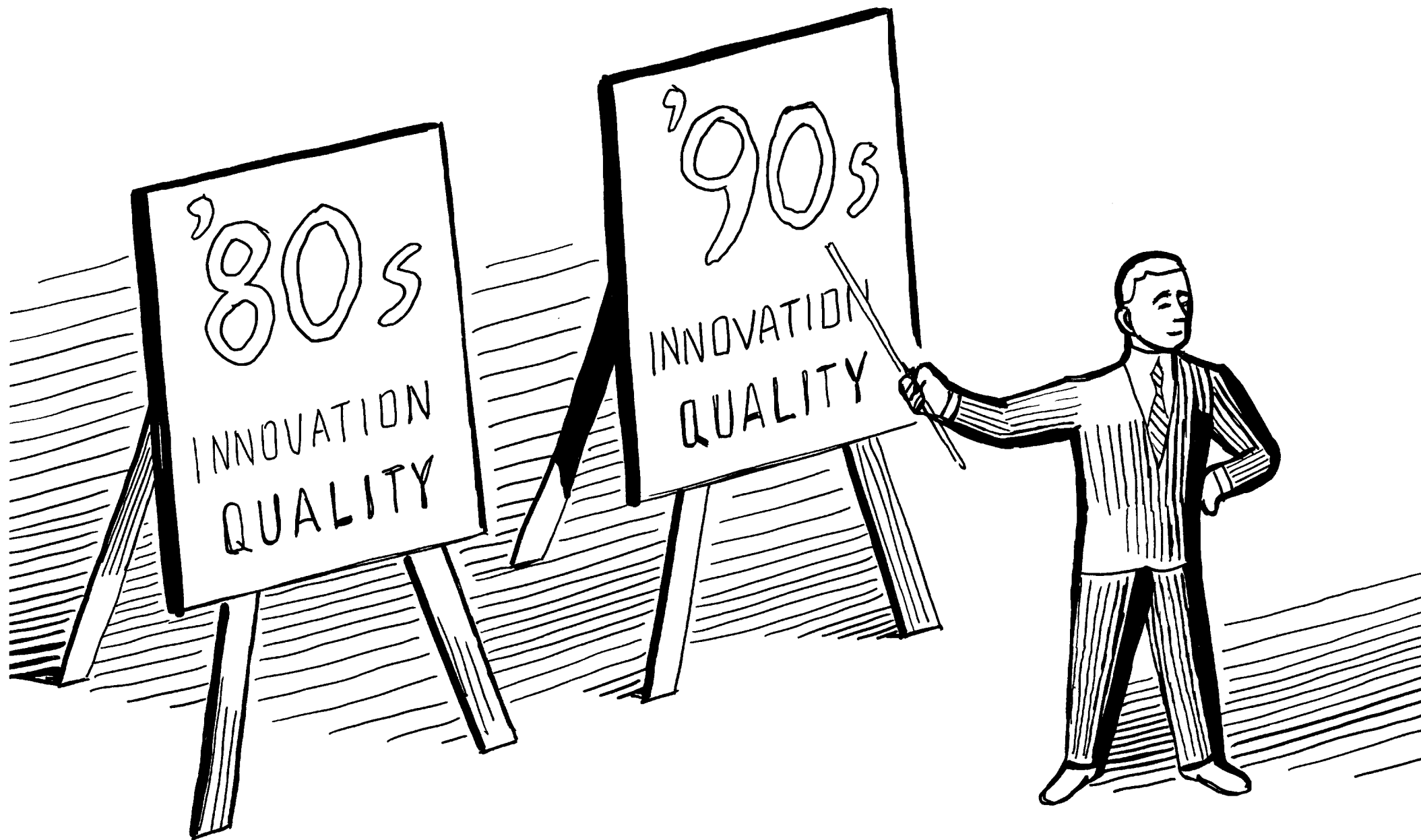
By initiating its interterritory check transportation system, offering later deadlines for receipt of checks and presenting checks to paying banks at later times in the day, the Fed was able to collect large numbers of checks faster and thereby reduced the daily average float by about \$6 billion to \$7 billion during the first years of the MCA. The Fed also initiated product enhancements that have improved the efficiency of the system, such as new check sorting techniques and transportation arrangements. In many cases, cooperation between the Fed and the private sector has resulted in important innovations, such as the

adaptation—prior to MCA—of magnetic ink character recognition (MICR) to speed check processing, and the more recent proposals to reduce the flow of paper checks, known as truncation. [See accompanying story on preceding page for more on MICR and truncation.]

In the area of electronics, the Fed developed a network that offers computer to computer links with financial institutions of all sizes. From 1981 to 1990, the number of institutions connected with the Fed's electronic network increased from 2,000 to 8,000; by 1994 that number is expected to exceed 10,000. It is reasonable to anticipate that someday all financial institutions using Fed services will be linked to a network where all financial transactions—from check images, to securities and ACH—can occur via a common personal computer.

The Fed's Current and Future Role

The controversy and change that was so much a part of the initial years following the MCA has given way to an era of relative stability. Calls for the Fed's removal from the payments system that were prevalent in banking trade magazines 10 years ago have given way to articles that now include the Fed as an accepted player in the field. Private institutions that compete with the Fed, many of which have developed good relationships with Fed district banks, now concentrate their attention on the Federal Reserve Board's regulatory intentions. Vocal concern from the private sector seems to ebb and flow according to the issuance of new regulations. Bankers associations find themselves dealing less and less with matters involving the Fed's



Even with the prospect of decreased volume in the coming years, the Fed—through cost control and the introduction of more efficient products and technologies—should be able to obtain a match in revenue and costs for most years.

payments function; indeed, one industry official has said that banks and other financial institutions have had so many other critical issues on their minds during the late 1980s and early 1990s that the Fed's payments services role has paled in comparison.

From a purely bottom-line perspective, the Fed has met its objectives in the payments system field over the past 10 years. Beyond mere survival, the Fed has maintained about the same percent of market share in check services that it had before the MCA, while check volume itself has steadily grown. After struggling initially, the Fed also began in 1984 to recover its costs through priced service revenues, a record it maintains to the present. Another measure of success is that the Fed has responded to Congress' call to improve the efficiency of the payments system: Real costs of Fed production have decreased while output has increased. Efficiency has also improved through innovations in electronic transfer and in the Fed's effort to shorten the paper trail of checks—an effort made even more urgent by the aforementioned Expedited Funds Availability Act (EFAA). EFAA grants even more power to the Fed than that granted by the MCA in terms of changing the way checks are handled by financial institutions.

Despite past successes, however, the future of the Federal Reserve in payments services is not certain. With banking industry consolidation and the trend toward nationwide banking, along with the emerging use of electronic check exchanges among big banks and other such developments, the Fed may very well see a reduction in the total volume of payments services during the second decade of the MCA. But this doesn't portend the withdrawal of the Federal Reserve from the

payments system market. Even with the prospect of decreased volume in the coming years, the Fed—through cost control and the introduction of more efficient products and technologies—should be able to obtain a match in revenue and costs for most years. And beyond the bottom-line considerations, it will still be important for the Fed to be involved in the payments system to help ensure the overall safety and soundness of the financial services industry.

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Federal Reserve Bank of Minneapolis

Statement of Condition

Earnings and Expenses

Directors

Officers

Statement of Condition (in thousands)

		Dec. 31, 1991	Dec. 31, 1990
Assets	Gold Certificate Account	\$ 171,000	\$ 203,000
	Special Drawing Rights	172,000	172,000
	Coin	13,688	13,228
	Loans to Depository Institutions	0	5,495
	Securities:		
	Federal Agency Obligations	78,144	101,300
	U.S. Government Securities	3,445,178	3,755,330
	Cash Items in Process of Collection	544,358	364,686
	Bank Premises and Equipment - Less Depreciation of \$34,525 and \$33,493	44,161	44,079
	Foreign Currencies	781,816	978,960
	Other Assets	64,696	96,005
	Interdistrict Settlement Fund	2,640,173	(188,629)
	Total Assets	<u>\$7,955,214</u>	<u>\$5,545,454</u>
Liabilities	Federal Reserve Notes ¹	\$6,690,635	\$3,928,662
	Deposits:		
	Depository Institutions	653,413	1,027,895
	Foreign, Official Accounts	4,245	4,500
	Other Deposits	37,620	6,207
	Total Deposits	695,278	1,038,602
	Deferred Credit Items	398,577	395,132
	Other Liabilities	31,072	46,036
	Total Liabilities	7,815,562	5,408,432
Capital Accounts	Capital Paid In	69,826	68,511
	Surplus	69,826	68,511
	Total Capital Accounts	139,652	137,022
	Total Liabilities and Capital Accounts	<u>\$7,955,214</u>	<u>\$5,545,454</u>

¹Amount is net of notes held by the Bank of \$1,427 million in 1991 and \$769 million in 1990.

Earnings and Expenses (in thousands)

	For the Year Ended December 31,	1991	1990
Current Earnings	Interest on U.S. Government Securities and Federal Agency Obligations	\$266,252	\$322,275
	Interest on Foreign Currency Investments	71,102	78,441
	Interest on Loans to Depository Institutions	3,395	5,596
	Revenue from Priced Services	39,930	40,886
	All Other Earnings	426	451
	Total Current Earnings	381,105	447,649
Current Expenses	Salaries and Other Personnel Expenses	35,230	32,901
	Retirement and Other Benefits	8,188	7,567
	Travel	2,009	1,643
	Postage and Shipping	5,880	5,576
	Communications	492	429
	Software	1,787	2,041
	Materials and Supplies	2,189	2,328
	Building Expenses:		
	Real Estate Taxes	1,004	(512) ¹
	Depreciation—Bank Premises	1,298	1,071
	Utilities	886	862
	Rent and Other Building Expenses	1,396	1,029
	Furniture and Operating Equipment:		
	Rentals	1,113	567
	Depreciation and Miscellaneous Purchases	5,828	4,573
	Repairs and Maintenance	2,773	2,660
	Cost of Earnings Credits	5,165	6,426
	Net Costs Distributed/Received from Other FR Banks	2,014	2,103
	Other Operating Expenses	1,305	1,689
	Total Current Expenses	78,557	72,953
	Reimbursed Expenses ²	(1,798)	(811)
	Net Expenses	76,759	72,142
	Current Net Earnings	304,346	375,507
	Net Additions ³	13,769	65,190
	Less:		
	Assessment by Board of Governors:		
	Board Expenditures	2,963	3,094
	Federal Reserve Currency Costs	3,836	3,311
	Dividends Paid	4,146	4,061
	Payments to U.S. Treasury	305,855	429,102
	Transferred to Surplus	1,315	1,129
Surplus Account	Surplus, January 1	68,511	67,382
	Transferred to Surplus—as above	1,315	1,129
	Surplus, December 31	\$ 69,826	\$ 68,511

¹Reflects a \$1,424 refund of 1989 taxes and a reduction in 1990 taxes.

²Reimbursements due from the U.S. Treasury and other Federal agencies; \$3,993 was unreimbursed in 1991 and \$3,893 in 1990.

³This item consists mainly of unrealized net gains related to revaluation of assets denominated in foreign currencies to market rates.

Directors Federal Reserve Bank of Minneapolis

Delbert W. Johnson
Chairman and Federal Reserve Agent

Gerald A. Rauenhorst
Deputy Chairman

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Farmers & Merchants Bank & Trust Co.
Aberdeen, South Dakota

James H. Hearon, III
Former Chairman and Chief Executive Officer
National City Bank
Minneapolis, Minnesota

Charles L. Seaman
President and Chief Executive Officer
First State Bank of Warner
Warner, South Dakota

Class B Elected by Member Banks

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Triple Adams Farms
Minot, North Dakota

Duane E. Dingmann
President
Trubilt Auto Body, Inc.
Eau Claire, Wisconsin

Earl R. St. John, Jr.
President
St. John Forest Products, Inc.
Spalding, Michigan

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Minneapolis, Minnesota

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Consumer Economics
University of Minnesota
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Gerald A. Rauenhorst
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Opus Corporation
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Federal Advisory Council Member

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Chairman and Chief Executive Officer
Norwest Corporation
Minneapolis, Minnesota

Helena Branch

James E. Jenks
Chairman

J. Frank Gardner
Vice Chairman

Appointed by the Board of Governors

J. Frank Gardner
President
Montana Resources, Inc.
Butte, Montana

James E. Jenks
Hogeland, Montana

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Chairman, President and Chief Executive
Officer
First Interstate Bank of Montana, N.A.
Kalispell, Montana

Beverly D. Harris
President
Empire Federal Savings and Loan Association
Livingston, Montana

Nancy McLeod Stephenson
Executive Director
Neighborhood Housing Services
Great Falls, Montana

December 31, 1991

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December 31, 1991

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